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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,046	02/20/2004	Claude Mathieu	8932-823-999	6834

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JONES DAY
222 EAST 41ST ST
NEW YORK, NY 10017

EXAMINER

PELLEGRINO, BRIAN E

ART UNIT	PAPER NUMBER
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3738

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/784,046	Applicant(s) MATHIEU ET AL.	
	Examiner Brian E. Pellegrino	Art Unit 3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-91 is/are pending in the application.
- 4a) Of the above claim(s) 37-42, 54-59, 62, 63, 65-68 and 81-91 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-36, 43-53, 60, 61, 64 and 69-80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/3/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Election/Restrictions***

Applicant's election of Group I, the implant and specie of Figs. 1a,b in the reply filed on 9/21/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 37-42, 54-59, 62, 63, 65-68, 81-91 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, there being no allowable generic or linking claim.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "9" as used in Fig. 1b. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by

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the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 51 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 51 recites the limitation "the projection" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 33-36,48,49,60,61,64,74,75 are rejected under 35 U.S.C. 102(b) as being anticipated by Howland et al. (5496318). Fig. 11 shows a vertebral prosthesis having first and second halves **106,108** with the first half 106 having a recess or bore **130** that receives a projection **138** of the second half **108** in an axial direction. The examiner is interpreting the claimed elements "key" and "keyway" in this way: corresponding or engaging parts that slide. Claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA 1974). See also *In re Morris*, Fed. Cir. 1997 127 F3d 1048, 1054,1055. The halves also comprise what can be construed as a keyway **122** and a complementary "key" **124** since it slides within the keyway to prevent rotation. The prosthesis also comprises a locking bolt **134** to lock the first and second halves together.

Claims 33-36,45,46,48-51,60,61,71,72,74-77 are rejected under 35 U.S.C. 102(e) as being anticipated by Lang et al. (6524341). Fig. 3 illustrates a spinal prosthesis with a first half having a coupling portion **2** with a bore and a process portion or plate **12** and a second half comprising a coupling portion **1** received in the bore and

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also having a process portion or plate **11**. Fig. 3 additionally shows the first and second halves have roughened surfaces **13** and can have perforations to enhance bone ingrowth, col. 5, lines 41,42. The examiner is interpreting the claimed elements "key" and "keyway" in this way: corresponding or engaging parts that slide. Claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA 1974). See also *In re Morris*, Fed. Cir. 1997 127 F3d 1048, 1054,1055. Fig. 4 illustrates the first half having radially projecting tabs and the second half comprises grooves to receive the tabs that can be interpreted as key and keyways. Lang et al. disclose the prosthesis is designed such that the first and second halves are to be locked to prevent rotation, col. 5, lines 46-49.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 44,70,78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al. '341 in view of Boyer et al. (6660038). Lang et al. is explained above. However, Lang fails to disclose the dimensions between the process portions or that the material for the prosthesis is metal. Boyer et al. teach the spinal implant can be made of metal, col. 7, lines 38-41. Boyer additionally teaches that the dimension between the process portions or plates can be 14mm, col. 12, lines 11,12. It would have been

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obvious to one of ordinary skill in the art to utilize metal for the implant and have a dimension between plates of about 15mm as taught by Boyer et al. for the implant of Lang et al. such that the implant is more radiopaque to improve visibility when implanting using imaging devices. Discovering the optimum or workable ranges involves only routine skill in the art.

Claims 43,69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al. '341 in view of Main et al. (4932975). Lang et al. is explained above. However, Lang fails to disclose a portion of the first and second halves having an elastomeric material. Main et al. teach the use of elastomeric material with the plate members to provide a cushioning effect, col. 3, lines 46-57. It would have been obvious to one of ordinary skill in the art to modify the plates and utilize an elastomeric material with the process portions as taught by Main et al. on the prosthesis of Lang et al. such that it reduces compression of the spine.

Claims 47,73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al. '341 in view of Taylor (WO 95/31158). Lang et al. is explained above. However, Lang fails to disclose a hydroxyapatite coating on the exterior surface of the process portions. Taylor teaches the use of a hydroxyapatite coating on the surface to promote bone ingrowth, abstract. It would have been obvious to one of ordinary skill in the art to coat the surface with hydroxyapatite as taught by Taylor on the implant of Lang et al. such that it enhances osteo-integration.

Claims 52,53,79,80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al. '341. Lang et al. is explained supra. However, Lang fails to disclose the

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dimensions of the coupling portions or the dimensions of the process portions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a cross-sectional dimension 50mm^2 to 300mm^2 for the coupling portions or a range between 70mm^2 to 500mm^2 for the cross sectional dimension of the process portions, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Pellegrino whose telephone number is 571-272-4756. The examiner can normally be reached on M-Th (8:30am-6pm) and alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC 3700, AU 3738

BRIAN E. PELLEGRINO
PRIMARY EXAMINER

A handwritten signature in black ink that reads "Brian E. Pellegrino". The signature is written in a cursive style with a large, stylized 'B' and 'P'.